

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

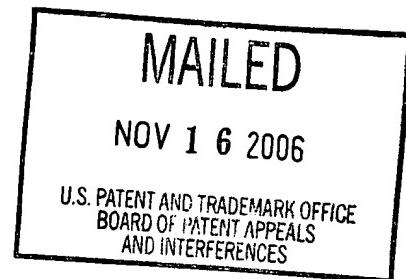
## UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

*Ex parte DAVID K. OVARD and ROY GREEFF*

Appeal No. 2006-2048  
Application No. 09/265,073

ON BRIEF



Before RUGGIERO, BARRY, and MacDONALD, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

A patent examiner rejected claims 1-42, 46, and 49-66. The appellants appeal therefrom under 35 U.S.C. § 134(a). We affirm-in-part.

#### I. BACKGROUND

The invention at issue on appeal concerns wireless interrogation. Wireless interrogation systems are used to monitor inventories. In such an application, a radio frequency identification device ("RFID") is attached to an object of interest. Responsive to receipt of a polling signal, the RFID outputs a signal that identifies the presence or location of itself and the attached object. (Spec. at 2.)

For their part, the appellants desire to communicate with devices located at "greater distances in particular applications." (*Id.*) Accordingly, their wireless interrogation system features an interrogator for generating a forward link signal. Cabling carries the signal to a communication station that generates a wireless signal corresponding to the forward link signal and transmits the wireless signal to at least one remote identification device. (Abs.)

A further understanding of the invention can be achieved by reading the following claims.

1. A wireless communication system comprising:
  - an interrogator including:
    - a housing including circuitry configured to generate a forward link communication signal;
    - communication circuitry configured to communicate the forward link communication signal; and
    - a communication station remotely located with respect to the housing and configured to receive the forward link communication signal from the communication circuitry and to radiate a forward link wireless signal corresponding to the forward link communication signal;
    - a remote communication device configured to receive the forward link wireless signal; and
    - wherein the circuitry of the housing comprises a transmitter configured to generate the forward link communication signal comprising a modulated signal.

26. An interrogator of a radio frequency identification system comprising:

a housing including:

    circuitry configured to generate a forward link communication signal; and

    a driver amplifier coupled with the circuitry and configured to increase the power of the forward link communication signal;

    a coaxial RF cable outside of the housing and coupled with the driver amplifier and configured to communicate the forward link communication signal; and

    a communication station remotely located with respect to the housing and including:

        automatic gain control circuitry coupled with the coaxial RF cable and configured to monitor the power of the forward link communication signal, compare the power with a predetermined threshold value, and adjust the power of the forward link communication signal responsive to the comparison;

        a power amplifier coupled with the automatic gain control circuitry and configured to increase the power of the forward link communication signal; and

        an antenna coupled with the power amplifier and configured to radiate a forward link wireless signal corresponding to the forward link communication signal.

49. An interrogator of a wireless communication system comprising:

    a housing including circuitry configured to generate a forward link communication signal;

communication circuitry outside of the housing and coupled with the circuitry of the housing and configured to communicate the forward link communication signal;

a communication station remotely located with respect to the housing and including an antenna coupled with the communication circuitry and configured to radiate a forward link wireless signal corresponding to the forward link communication signal; and

wherein the communication circuitry includes a coaxial RF cable.

50. An interrogator of a wireless communication system comprising:

a housing including circuitry configured to generate a forward link communication signal;

communication circuitry outside of the housing and coupled with the circuitry of the housing and configured to communicate the forward link communication signal;

a communication station remotely located with respect to the housing and including an antenna coupled with the communication circuitry and configured to radiate a forward link wireless signal corresponding to the forward link communication signal; and

wherein the communication circuitry includes a plurality of transceivers individually coupled with one of the housing and the communication station.

Claims 1-3, 6-8, 11-13, 16-22, 24, 25, 27-29, 33-37, 41, 42, 51-53, 55-57,

and 64-65 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,842,118 ("Wood"); U.S. Patent No. 5,649,296 ("MacLellan"); and U.S. Patent No. 3,733,602 ("Cuckler"). Claims 4, 5, 14, 15, 23, 26, 30-32, 38-40, 46, and 54 stand rejected under § 103(a) as obvious over Wood; MacLellan; Cuckler; and U.S. Patent

No. 5,799,010 ("Lomp"). Claims 9, 10, 49, and 50 stand rejected under § 103(a) as obvious over Wood; MacLellan; Cuckler; and U.S. Patent No. 6,353,729 ("Bassirat"). Claims 58-63 and 66 stand rejected under § 103(a) as obvious over Wood; MacLellan; Cuckler; and U.S. Patent No. 6,084,530 ("Pidwerbetsky").

## II. OPINION

Our opinion addresses the claims in the following order:

- claims 49 and 50
- claims 26 and 46
- claims 1-25, 27-42, and 51-66.

### A. CLAIMS 49 AND 50

"When multiple claims subject to the same ground of rejection are argued as a group by appellant, the Board may select a single claim from the group of claims that are argued together to decide the appeal with respect to the group of claims as to the ground of rejection on the basis of the selected claim alone. Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately." 37 C.F.R. § 41.37(c)(1)(vii) (Sep. 30, 2004).

Here, the appellants argue claims 49 and 50, which are subject to the same ground of rejection, as a group. (Appeal Br. at 6-16, 21.) Therefore, we select claim 49 as the sole claim on which to decide the appeals of the group. "With this representation in mind, rather than reiterate the positions of the examiner or the appellants *in toto*, we focus on the following three points of contention therebetween," *Ex Parte Massingill*, No. 2003-0506, 2004 WL 1646421, at \*2 (Bd.Pat.App & Int. 2004):

- motivation to combine Wood and MacLellan
- separation of modulation and transmission
- relevance of Cuckler.

#### *1. Motivation to Combine Wood and MacLellan*

The examiner finds, "MacLellan teaches a communication station to communicate the remote device to extend the range of communication." (Examiner's Answer at 4.) The appellants "have failed to uncover any teachings in the prior art to support the bald allegation . . . that MacLellan extends the range of communication." (Reply Br. at 3.)

"The presence or absence of a motivation to combine references in an obviousness determination is a pure question of fact." *In re Gartside*, 203 F.3d 1305, 1316, 53 USPQ2d 1769, 1776 (Fed. Cir. 2000) (citing *In re Dembiczak*, 175 F.3d 994, 1000, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999)). A suggestion to combine teachings from the prior art "may be found in explicit or implicit teachings within the references

themselves, from the ordinary knowledge of those skilled in the art, or from the nature of the problem to be solved." *WMS Gaming Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999) (citing *In re Rouffet*, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998)).

Here, we find that Wood relates to "[r]adio frequency (wireless) communications systems," (col. 1, l. 10), that employ "[r]adio frequency identification devices," (*id.* at l. 62), i.e., RFIDs. We also find that MacLellan "relates to wireless communication systems. . ." (Col. 1, l. 13.) More specifically, the latter reference discloses "an RFID system that achieves synchronization rapidly, even with a relatively low-speed Downlink and having a relatively high-speed Uplink to send the necessary Tag data rapidly even in the presence of multiple Tags in the reading field." (Col. 3, ll. 17-21.) MacLellan adds that its wireless communication system is "able to a) have the Tag detect the presence of the Interrogator in a very short period of time, and b) have the Tag to Interrogator data rate be sufficiently large such that the communications can be completed within the time period available." (Col. 2, ll. 62-66.)

Regarding the examiner's finding of motivation, MacLellan teaches that "[a]n Application Processor 101 communicates over Local Area Network (LAN) 102 to a plurality of Interrogators 103-104." (Col. 3, ll. 28-30.) Of course, "[e]very patent

application and reference relies to some extent upon knowledge of persons skilled in the art to complement that [which is] disclosed. . . ."*In re Bode*, 550 F.2d 656, 660, 193 USPQ 12, 16 (CCPA 1977) (quoting *In re Wiggins*, 488 F.2d 538, 543, 179 USPQ 421, 424 (CCPA 1973)). Those persons "must be presumed to know something" about the art "apart from what the references disclose." *In re Jacoby*, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962). Here, we find that those skilled in the art would have known that employing a local area network extends a range of communications to the (local) area encompassed by the LAN.

Because MacLellan's teachings offer an extended range of communications, rapid synchronization and detection, and a large data rate, we agree with the examiner's finding that those skilled in the art would have been motivated to combine teachings of Wood and MacLellan.

## *2. Separation of Modulation and Transmission*

The examiner finds that Wood teaches the following features:

an interrogator (col. 5, lines 25-27, the host computer acting as a master or interrogator) including: a housing (col. 5, lines 34-38, common housing) including circuitry configured to generate a forward link communication signal (col. 5, lines 30-33 and lines 45-47, forward link command (or function) generated at the host computer acting as master or interrogator); communication circuitry configured to communicate the forward link communication signal (Fig. 5, col. 12, lines 28-44, RF circuitry) and to radiate a forward link wireless signal corresponding to the forward link

communication signal (Fig. 5, col. 12, lines 28-44, antennas - X1 and X2); and a remote communication device (col. 3, lines 53 to col. 4, line 16, device or transponder (16)). . . .

(Examiner's Answer at 3-4.) He also finds that "MacLellan discloses, in the art of tag identification system, a communication station remotely located with respect to the housing (Fig. 1, interrogator (103) remotely connected via LAN (102)) to extend the range of communication with the tag or transponder." (*Id.* at 4.) The appellants argue, "Apart from improper reliance upon Appellants' disclosure, there is no motivation to modify either Wood nor MacLellan to separate the modulation and transmission functions as positively recited in the claims." (App. Br. at 15.)

"In addressing the point of contention, the Board conducts a two-step analysis. First, we construe the representative claim at issue to determine its scope. Second, we determine whether the construed claim would have been obvious." *Ex Parte Massingill*, No. 2003-0506, 2004 WL 1646421, at \*2 (Bd.Pat.App & Int. 2004).

#### a. Claim Construction

"Analysis begins with a key legal question — what is the invention claimed?"

*Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987). In answering the question, "the PTO gives claims their 'broadest reasonable interpretation.'" *In re Bigio*, 381 F.3d 1320, 1324, 72 USPQ2d 1209, 1211 (Fed. Cir.

2004) (quoting *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1668 (Fed. Cir. 2000)). "Moreover, limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184, 26 USPQ2d 1057, 1059 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)).

Here, claim 49 recites in pertinent part the following limitations:

a housing including circuitry configured to generate a forward link communication signal;

communication circuitry outside of the housing and coupled with the circuitry of the housing and configured to communicate the forward link communication signal;

a communication station remotely located with respect to the housing and including an antenna coupled with the communication circuitry and configured to radiate a forward link wireless signal corresponding to the forward link communication signal. . . .

Contrary to the appellants' argument, the representative claim does not recite modulation, let alone separation of modulation and transmission. Giving claim 49 its broadest, reasonable construction, the limitations merely require circuitry for generating a signal, a remotely located station for transmitting a wireless forward link signal, and communication circuitry connecting the generating circuitry and the transmitting station.

b. Obviousness Determination

"Having determined what subject matter is being claimed, the next inquiry is whether the subject matter would have been obvious." *Massingill*, at \*3. The question of obviousness is "based on underlying factual determinations including . . . what th[e] prior art teaches explicitly and inherently. . . ." *In re Zurko*, 258 F.3d 1379, 1383, 59 USPQ2d 1693, 1696 (Fed. Cir. 2001) (citing *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966); *In re Dembicza*k, 175 F.3d 994, 998, 50 USPQ2d 1614, 1616 (Fed. Cir. 1999); *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995)). "A *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art." *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)).

Here, we find that Wood's "communications system 10 includes . . . an interrogator unit (interrogator) 26 and a host computer 48 in communication with the interrogator 26." (Col. 3, ll. 54-57.) "The host computer 48 includes an applications program for controlling the interrogator 26 and interpreting responses, and a library of radio frequency identification device applications or functions. Most of the functions communicate with the interrogator 26." (Col. 5, ll. 27-31.) Because the host computer

communicates with the interrogator to control the interrogator, we find that the reference teaches the claim's circuitry for generating a signal.

The aforementioned communications between Wood's host computer and interrogator "effect radio frequency communication between the interrogator 26 and the device 12." (Col. 5, ll. 32-33.) More specifically, "the interrogator 26 transmits an interrogation signal or command 27 ('forward link') via one of the antennas X1, X2, etc." (*Id.* at ll. 45-47.) Figure 1 of the reference, moreover, shows that the interrogator 26 is housed separately from the host computer 48. Because the interrogator is housed separately from the host computer, and the interrogator transmits a forward link signal via an antenna, we find that Wood teaches the claim's remotely located station for transmitting a wireless forward link signal.

As aforementioned, the reference's "host computer 48 [is] in communication with the interrogator 26." (Col. 3, ll. 56-57.) Figure 1, moreover, shows a connection between the two elements. Because a person of ordinary skill in the art would have understood from the reference that the communication connection is embodied by communication circuitry, we find that Wood's teaches communication circuitry connecting the generating circuitry and the transmitting station. Therefore, we affirm the rejection of claim 49 and of claim 50, which falls therewith, based on Wood.

Alternatively, as mentioned regarding the first point-of-contention, MacLellan employs a LAN to connect its Application Processor 101 and its Interrogators 103-104. Because employing a LAN extends a range of communications to a (local) area encompassed by the LAN, as also mentioned regarding the first point-of-contention, we also agree with the examiner's finding that those skilled in the art would have been motivated to employ a LAN to connect Wood's host computer 48 and interrogator 26. Therefore, we affirm the rejection of claim 49 and of claim 50, which falls therewith based on Wood and MacLellan.<sup>1</sup>

### *3. Relevance of Cuckler*

The examiner finds that the "prior arts of Wood, MacLellan and Cuckler are common in the art of remote or wireless communication, and therefore, they are analogous and are combinable to teach to teach extended range of data transmission." (Examiner's Answer at 19-20.) The appellants argue, "Cuckler is directed towards intrusion detection (not for communicating data signals as disclosed in Wood or MacLellan) and there is no evidence of record that the disparate teachings of Cuckler

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<sup>1</sup>The Board may rely on less than all of the references applied by an examiner in an obviousness rationale without designating it as a new ground of rejection. *In re Bush*, 296 F.2d 491, 496, 131 USPQ 263, 266-67 (CCPA 1961); *In re Boyer*, 363 F.2d 455, 458, n.2, 150 USPQ 441, 444, n.2 (CCPA 1966).

can be combined with the teachings of Wood or MacLellan or that any improvements would result from the combination." (Reply Br. at 4.)

Having affirmed the rejection of claims 49 and 50 based on Wood or on the combination of Wood and MacLellan, we consider Cuckler cumulative to the teachings of the former references and decline to address the contentions about Cuckler.

#### B. CLAIMS 26 AND 46

When the patentability of dependent claims in particular is not argued separately, the claims stand or fall with the claims from which they depend. *In re King*, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); *In re Sernaker*, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983). Here, the appellants argue claims 26 and 46, which are subject to the same ground of rejection, as a group. (Appeal Br. at 6-16, and 21.) We select claim 26 as the sole claim on which to decide the appeal of the group.

The examiner finds, "Lomp teaches, in the art of communication power control system, the adjustment circuitry comprises automatic gain control circuitry (Figs. 29-30, col. 66, lines 44-65, AGC is a power control associated with feedback control for forward communication) for the purpose of power control of subscriber unit and base stations within communication system." (Examiner's Answer at 21.) The appellants

argue that "there is no evidence of record that the combination of Wood, MacLellan and Cuckler are deficient with respect to power control or that the combination has concerns or problems related to power control to motivate one of skill in the art to look to yet another reference for meaningful teachings." (App. Br. at 21.)

*1. Claim Construction*

Claim 26 recites in pertinent part the following limitations:

automatic gain control circuitry coupled with the coaxial RF cable and configured to monitor the power of the forward link communication signal, compare the power with a predetermined threshold value, and adjust the power of the forward link communication signal responsive to the comparison. . . .

Giving the representative claim its broadest, reasonable construction, the limitations merely require automatic gain control ("AGC") circuitry.

*b. Obviousness Determination*

As found by the examiner, Lomp applies "an input signal to the Automatic Gain Control (AGC) Circuit 2911. The AGC 2911 produces a variable gain amplifier control signal into the VGA1 2910. This signal maintains the level of the output signal of VGA1 2910 at a near constant value." (Col. 66, ll. 53-58.) We find that the reference also discloses that "[t]he output signal of VGA1 is detected by the Automatic Gain Control Circuit (AGC1) 3004 which provides a variable gain amplifier control signal to

VGA1 3003 to maintain the level of the output signal of VAG1 at a near constant value," (col. 68, ll. 37-41), and that "[t]he output signal of VGA3 is detected by the Automatic Gain Control Circuit (AGC2) 3021 which produces a variable gain amplifier control signal for the VGA3 3020. This signal maintains the output power level of the VGA3 3020 at a near constant value." (Col. 69, ll. 22-27.) In summary, Lomp teaches that AGC circuitry offers the benefit of maintaining the level of an output signal at a near constant value.

For our part, we find that persons skilled in the art would have known that the level of signals output from circuits inevitably varies over time, temperature, and operating conditions. Because AGC circuitry maintain the level of an output signal at a near constant value, we also agree with the examiner's finding that those skilled in the art would have been motivated to employ AGC circuitry with Wood's interrogator. Therefore, we affirm the rejection of claim 26 and of claim 46, which falls therewith, based on Wood, MacLellan, and Lomp (and considering Cuckler cumulative to the teachings of the former references).

C. CLAIMS 1-25, 27-42, AND 51-66

The examiner alleges, "One skilled in the art recognizes that data signal or communication signal is **always modulated** along its path within the circuit and medium to be transmitted to the destination. (Examiner's Answer at 19.) The "[a]ppellant[s] have failed to uncover any teachings in MacLellan that the signals intermediate the application processor 101 communicated using LAN 102 to processor 103 comprise modulated signals." (Reply Br. at 8.)

"In addressing the point of contention, the Board conducts a two-step analysis. First, we construe the independent claims at issue to determine their scope. Second, we determine whether the construed claims would have been obvious." *Ex Parte Cuomo*, No. 2003-0509, 2004 WL 4978831, at \*2 (Bd.Pat.App & Int. 2004).

*1. Claim Construction*

"The Patent and Trademark Office (PTO) must consider all claim limitations when determining patentability of an invention over the prior art." *In re Lowry*, 32 F.3d 1579, 1582, 32 USPQ2d 1031, 1034 (Fed. Cir. 1994) (citing *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983)). Here, claim 1 recites in pertinent part the following limitations:

a housing including circuitry configured to generate a forward link communication signal;

communication circuitry configured to communicate the forward link communication signal; and

a communication station remotely located with respect to the housing and configured to receive the forward link communication signal from the communication circuitry and to radiate a forward link wireless signal corresponding to the forward link communication signal;

...

*wherein the circuitry of the housing comprises a transmitter configured to generate the forward link communication signal comprising a modulated signal.*

(Emphasis added.) Claims 11, 21, 27, 35, and 58 include similar limitations. Although the wherein clause of claim 1 relates to the second element of the claim, viz., the "housing including circuitry," placement of the clause at the end of the claim obfuscates the relationship.<sup>2</sup> In contrast to claim 49, however, claim 1 does specify the separation of modulation and transmission. Giving claims 1, 11, 21, 27, 35, and 58 their broadest, reasonable construction, the limitations require circuitry for modulating a signal, a remotely located station for transmitting a wireless forward link signal, and communication circuitry connecting the modulating circuitry and the transmitting station.

*b. Obviousness Determination*

"In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993) (citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)).

Here, as found regarding claim 49, *supra*, Wood's host computer 48 is connected to, and transmits signals to, the reference's interrogator 26, and the interrogator is housed remotely from the host computer. The examiner does not allege, let alone show, however, that the host computer modulates the signals it sends to the interrogator.

As also found regarding claim 49, *supra*, MacLellan's Application Processor 101 is connected to, and transmits signals to, the reference's remotely located Interrogators 103 and 104. The examiner does not contest the appellants' failure to uncover any teachings in MacLellan that the signals the Application Processor communicates via LAN 102 to the Interrogators comprise modulated signals. Instead, he alleges that the signals transmitted by the Application Processor to the Interrogators are inherently modulated.

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<sup>2</sup> We recommend that the clause be moved adjacent to the second element to clarify the relation.

"To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (quoting *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991)). "Inherency . . . may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981) (citing *Hansgirg v. Kemmer*, 102 F.2d 212, 214, 40 USPQ 665, 667 (1939)).

Here, the examiner proffers no extrinsic evidence that the signals MacLellan's Application Processor transmits to the associated Interrogators are modulated. Although these signals may be modulated, we cannot find that modulation is necessarily present. To the contrary, we agree with the appellants that the Application Processor and the Interrogators "may communicate using baseband signals or using LAN arrangements . . . [that] do not utilize modulation or communicate modulated signals." (Reply Br. at 8.)

Furthermore, the examiner does not allege, let alone show, that the addition of Lomp, Bassirat, or Pidwerbetsky cures the aforementioned deficiency of Wood and MacLellan. Absent a teaching or suggestion of circuitry for modulating a signal, a remotely located station for transmitting a wireless forward link signal, and communication circuitry connecting the modulating circuitry and the transmitting station, we are unpersuaded of a *prima facie* case of obviousness. Therefore, we reverse the obviousness rejection of claims 1, 11, 21, 27, 35, and 58 and of claims 2-10, 12-20, 22-25, 28-34, 36-42, 51-57, and 59-66, which depend therefrom.

### III. ADDITIONAL OBSERVATIONS

Although we could not find that MacLellan's LAN 102 necessarily employs modulation, we observe that some LANs employed broadband transmission before the filing date of the appellants' application for a patent. "Broadband transmission typically employs analog transmission using a wider range of frequencies than baseband transmission." James Martin with Kathleen Chapman, *Local Area Networks: Architectures and Implementations* 20 (1989) (copy attached). "Different transmissions can . . . take place simultaneously over the different [frequency] channels. . ." (*Id.* at p. 22.) To employ broadband transmission, a computer connected to the LAN employs a modem, i.e. a *modulator- demodulator*. (*Id.* at p. 25 (emphasis added).) Being "basically a board of review," *Ex parte Gambogi*, 62 USPQ2d 1209, 1211 (Bd.Pat.App.

& Int. 2001), however, we leave the question of whether it would have been obvious to have used a broadband LAN, with its modems, to connect Wood's host computer 48 to its interrogator 26.

#### IV. CONCLUSION

In summary, the rejections of claims 26, 46, 49, and 50 under § 103(a) are affirmed. The rejections of claims 1-25, 27-42, and 51-66 under § 103(a), in contrast, are reversed.

"Any arguments or authorities not included in the brief or a reply brief filed pursuant to [37 C.F.R.] § 41.41 will be refused consideration by the Board, unless good cause is shown." 37 C.F.R. § 41.37(c)(1)(vii). Accordingly, our affirmance is based only on the arguments made in the briefs. Any arguments or authorities omitted therefrom are neither before us nor at issue but are considered waived. Cf. *In re Watts*, 354 F.3d 1362, 1367, 69 USPQ2d 1453, 1457 (Fed. Cir. 2004) ("[I]t is important that the applicant challenging a decision not be permitted to raise arguments on appeal that were not presented to the Board.") No time for taking any action connected with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

*Joseph F. Ruggiero*  
JOSEPH F. RUGGIERO  
Administrative Patent Judge

*Lance Leonard Barry*  
LANCE LEONARD BARRY  
Administrative Patent Judge

*Allen R. MacDonald*  
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